



EPA Region 5 Records Ctr.



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For more information

EPA invites you to review technical reports, facts sheets and other official documents related to the cleanup of hazardous waste sites in the Sauget area at the information repository:

Cahokia Public Library
140 Cahokia Drive

Online:

www.epa.gov/reg5rcra/wptdiv/cars
www.epa.gov/region5/sites/saugetarea1
www.epa.gov/region5/sites/saugetarea2

Contact EPA

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Region 5 toll-free: 800-621-8431,
8:30 a.m. – 4:30 p.m., weekdays

Results Released for Home, Park Soil Sampling

Sauget Area Soil Sampling Project
Sauget and East St. Louis, Illinois

March 2010

U.S. Environmental Protection Agency Region 5 recently released the results from soil sampling of residential yards and area parks in Sauget and East St. Louis. EPA collected these samples to find out whether PCBs and dioxin pollutants carried by the wind or released from past industrial activity were present in the soil. Results show that contamination was found at some of the properties but at low levels. Pollutant concentrations at six of 32 properties sampled were equal to or slightly above preliminary cleanup goals used by EPA to protect the public. These levels do not currently indicate an immediate health problem. However, in the coming months EPA will study whether further steps are necessary and will keep the public informed.

Sample details

In early November 2009 EPA sampled surface soil at 17 residences and a ball park in the village of Sauget. In addition, in East St. Louis 15 residences, one church yard and one playground were sampled in the Rush City neighborhood. The sampled areas were chosen based on an older EPA report that had found PCB contamination in industrial areas near these neighborhoods.

Five soil samples at a depth of 6 inches were collected at each location and combined into one sample. The samples were then sent to an environmental laboratory and analyzed for the related chemical compounds polychlorinated biphenyls (PCBs), polychlorinated dibenzodioxins (dioxins), and dibenzofurans (furans). These contaminants last a long time in the environment and tend to accumulate in surface soil.

PCBs are man-made chemicals used as coolants and lubricants in transformers and other industrial equipment. In 1977 manufacturing of PCBs was banned because they were found to be toxic to humans and wildlife. Dioxins and furans are a family of toxic substances that share a similar chemical structure with PCBs. They are created as byproducts when certain chemicals or products are made, such as herbicides used for weed control. They are also formed when some organic products and waste are burned. "Organic" means a carbon-based substance.

PCBs, dioxins and furans have been shown to cause a variety of adverse health effects such as cancer and serious noncancer conditions in people and animals. Exposure to these contaminants in soil would be expected to occur mainly through direct contact with skin or by incidental swallowing of dirt particles.

Sample results

In highly industrialized areas of the United States, no soil, water or air mass is without pollutants of some sort and zero contamination is impossible to achieve. For PCBs in residential areas, EPA currently

recommends a preliminary cleanup goal of one part PCB per million parts soil. Sample results show that soil at six properties was at or somewhat above this goal for PCBs: three residential yards and a park in Sauget, and two residential yards in East St. Louis contained PCBs between one and five parts per million.

Samples showed that all properties tested for dioxins and furans are below EPA's current preliminary cleanup goal of one part per billion. Scientists from the federal Agency for Toxic Substances and Disease Registry consider the health risks to be low when dioxin levels in residential soil are below this level. More information about dioxins can be found in an EPA publication on the Internet at: www.epa.gov/oswer/riskassessment/pdf/92-857-84fs.pdf.

EPA is considering a revision to its dioxin cleanup goals. More information about this is at: www.epa.gov/superfund/policy/remedy/sfremedy/remedies/dioxinsoil.html.

Recommendations

EPA has notified owners of sample results for their property. The Agency recommends property owners or residents who live on land with contamination levels above EPA's preliminary cleanup goals follow the advice from the Illinois Department of Public Health to reduce exposure to soil contaminants. This advice goes for anyone else who may be concerned about

contamination where they live. A fact sheet about this has been mailed to area property owners. Residents of properties near industrial areas often find these practices to be useful, general safeguards whether or not their specific property has been sampled for contamination. Some of the advice includes:

1. Wash children's hands and faces before eating and bedtime.
2. Regularly clean toys or objects that children put in their mouths.
3. Frequently vacuum carpeting, rugs, and upholstery.
4. Build a sandbox with clean sand to give children a safe play area.

The entire fact sheet from Illinois Department of Public Health can be found online at: www.idph.state.il.us/envhealth/factsheets/leadsoil.htm.

Next steps

The level of contamination found in this sampling is not an immediate health problem. However, in the coming year EPA will evaluate whether further steps are necessary and will make sure the public stays informed as the investigation process moves along.